

# HAIKU DESIGN & ANALYSIS

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PUBLIC UTILITIES  
COMMISSION

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February 1, 2010

To the Honorable Chairman and Members of  
The Hawaii Public Utilities Commission  
465 South King Street Room #103  
Honolulu, Hawaii 96813

Subject: Docket No. 2009-0108  
Investigation of Amendments to the Framework for Integrated  
Resource Planning

## Identification of Panelists for Hearings Panels

Carl Freedman, dba Haiku Design and Analysis (HDA) identifies its panelists assigned to each panel as follows:


For panels 1 through 5, HDA's panelist will be Carl Freedman.

A CV for Carl Freedman is attached to this letter.

This letter is being served on the date of this letter by electronic transmission to all parties on the service list in this docket and two copies are being served on the date of this letter by first class mail to the Division of Consumer Advocacy at the address on the service list in this docket.

Respectfully submitted,

Dated: February 1, 2010; Haiku, Hawaii

Signed:   
Carl Freedman  
dba Haiku Design and Analysis

## **Carl Freedman**

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Haiku, HI., 96708  
(808) 572-2519    jcfm@hawaiiantel.net

### **EXPERIENCE: Utility Policy, Regulation and Economics**

- Authored the Hawaii Energy Policy Forum report “*Hawaii Energy Utility Regulation and Taxation: Practice, Policy and Incentives for Energy Efficiency, Renewable and Distributed Energy Resources*” July, 2003

#### **Integrated Resource Planning**

- Was a primary participant in the Hawaii PUC docket and collaborative establishing the current Framework for Integrated Resource Planning for Hawaii’s energy utilities
- Performed a comprehensive review of the IRP’s for each of Hawaii’s energy utilities on behalf of the Hawaii Division of Consumer Advocacy (Consumer Advocate)
- Represented the Consumer Advocate on the IRP Advisory Groups of each Hawaii energy utility
- Developed a Scenario Analysis Model incorporating a capacity expansion and production cost model for long term evaluation of conventional, renewable and conservation resources for Hawaii’s electric utilities
- Currently is under contract to prepare comprehensive Integrated Resource Plans for the Maui County Board of Water Supply for the Maui County Water Use and Development Plan

#### **Demand-Side Management (DSM) Incentives and Implementation**

- Represented the Consumer Advocate in the DSM Cost Recovery and Incentives Working Group considering mechanisms for the Hawaii electric utilities
- Presented testimony to the Hawaii PUC analyzing various DSM cost recovery and incentive options, including recommendations for a “sales decoupling” mechanism for Hawaii’s utilities.
- Represented Rocky Mountain Institute in the Hawaii PUC “Energy Efficiency” docket considering utility incentives and establishment of a third party energy efficiency administrator.

#### **Renewable Resource Development**

- Represented the Hawaii Division of Consumer Advocacy in the PUC investigation on Barriers and Strategies to Remove Barriers to Renewable Energy Development
- Selected as primary editor and chaired the authoring committee of the *Collaborative Document: Renewable Energy Resources Investigation*, cataloguing the findings of the twenty-one parties in the docket and forwarded to the Hawaii Legislature by the PUC
- Presented testimony and rigorous analysis to the Hawaii PUC quantifying the capacity value of wind resources to Hawaii electric utility systems
- Conceived and proposed one of the nation’s first ‘set aside’ regulatory strategies for promotion of renewable resource development, adopted as an administrative rule by the Oregon Energy Facilities Siting Council in 1979

- Developed the first production costing methods capable of evaluating wind energy resources in conjunction with variable hydroelectric conditions for the Pacific Northwest electric system (1978)

#### **Electric Industry Restructuring, Competition and Deregulation**

- Represented the Hawaii Division of Consumer Advocacy in the PUC investigative docket collaborative on electric industry restructuring, competition and deregulation.

#### **Incorporation of Externalities in resource planning.**

- Proposed an Externalities Collaborative to establish Hawaii-specific externality values to be used in Integrated Resource Planning (in testimony on behalf of the Consumer Advocate); rejected by the Hawaii PUC in favor of a utility-run investigation with an advisory group process
- Represented the Consumer Advocate on the Hawaii electric utility Externalities Investigation Advisory Group and drafted the Consumer Advocate's analysis, critique and recommendations regarding the utility externalities investigation

### **OCCUPATION**

1991 - 2010	Consultant, Sole Proprietor: dba Haiku Design and Analysis Public Utility Regulatory Affairs Integrated Resource Planning Energy Resource Economic Analysis
2004 – 2010	Chair of Regulatory Reform Work Group and Steering Committee Member Hawaii Energy Policy Forum University of Hawaii
1991 - 2001	Hawaii IRP Advisory Group Representative Division of Consumer Advocacy Department of Commerce and Consumer Affairs State of Hawaii
1999 - 2000	Member, Subcommittee on Alternate Energy and Conservation Maui County Council
1989 - 2002	President, Administrator Blue Ocean Preservation Society, Haiku, Hawaii.
1990 - 1991	Hawaii Public Utilities Commission Integrated Resource Planning Collaborative Participant
1979 - 1981	Participant Representing the State of Oregon Energy Forecasting Delphi/Monte Carlo Pool Pacific Northwest Utilities Conference Committee

1977 - 1987      Partner, Analyst on Utility Economics and Policy  
Forelaws On Board,  
Boring, Oregon.

### **FORMAL EDUCATION**

1970 - 1973      Reed College, Portland, Oregon

### **CONTESTED CASE SWORN WRITTEN TESTIMONY**

1977      Before the Nuclear Regulatory Commission, AS&LB;  
Testimony regarding the economics of the Pacific Northwest electrical  
generating system.

1978      Before the Oregon Energy Facility Siting Council;  
Testimony analyzing the energy forecasts of Portland General Electric,  
Pacific Power and Light and Puget Sound Power and Light Companies.  
Included a twenty year energy forecast for Pacific Power and Light.

1978      Before the Oregon Energy Facility Siting Council;  
Testimony regarding the availability and cost of wind turbine generation  
including an hourly analysis of regional wind speed data utilizing a  
production cost model for the Pacific Northwest Region over a twenty-  
year period.

1978      Before the Oregon Energy Facility Siting Council;  
Testimony on the comparative costs of over- and under-building resources  
including a probabilistic analysis of costs for the Pacific Northwest system  
under various load growth, resource expansion and hydroelectric  
availability scenarios.

1979      Before the Public Utilities Commissioner of Oregon;  
Testimony regarding the expected value of voluntary conservation  
measures typically made during adverse hydroelectric conditions in the  
Pacific Northwest.

1991      Before the Public Utilities Commission of Hawaii;  
Testimony regarding a proposed framework for an Integrated Resource  
Planning process for Hawaii's energy utilities.  
Docket No. 6617.

1993      Before the Public Utilities Commission of Hawaii;  
Testimony evaluating GASCO's Integrated Resource Plan application and  
representing the position of the Consumer Advocate. Docket No. 7261

- 1993 Before the Public Utilities Commission of Hawaii;  
Testimony evaluating Hawaiian Electric Company's Integrated Resource Plan application and representing the position of the Consumer Advocate. Docket No. 7257
- 1994 Before the Public Utilities Commission of Hawaii;  
Testimony evaluating Kauai Electric Division's Integrated Resource Plan application and representing the position of the Consumer Advocate. Docket No. 7260
- 1994 Before the Public Utilities Commission of Hawaii;  
Testimony evaluating Maui Electric Company's Integrated Resource Plan application and representing the position of the Consumer Advocate. Docket No. 7258
- 1994 Before the Public Utilities Commission of Hawaii;  
Testimony evaluating Hawaii Electric Light Company's Integrated Resource Plan application and representing the position of the Consumer Advocate. Docket No. 7259
- 1994 Before the Public Utilities Commission of Hawaii;  
Testimony evaluating Hawaiian Electric Company's Commercial Demand-Side Management Programs. Docket No. 94-0010
- 1995 Before the Public Utilities Commission of Hawaii;  
Testimony regarding generation efficiency, fuel expense, fuel cost adjustment methods and need for new generation in Maui Electric Company's rate case. Docket No. 94-0345
- 1995 Before the Public Utilities Commission of Hawaii;  
Testimony regarding generation efficiency, fuel expense, purchased power capacity and energy costs, fuel cost adjustments and the need for new generation in Hawaii Electric Power & Light's rate case. Docket No. 94-0140.
- 2000 Before the Public Utilities Commission of Hawaii;  
Testimony regarding wind generation capacity value and contribution to utility system reliability considering Apollo Energy Co. Purchased Power Agreement with Hawaii Electric Power & Light. Docket No. 00-0135
- 2005-06 Before the Public Utilities Commission of Hawaii;  
Testimony regarding utility incentives and establishment of a public benefits fund, market structure and third party DSM administrator. Docket No. 05-0069
- 2008-10 Before the Public Utilities Commission of Hawaii  
Intervenor and expert panelist in the Commission's Proceeding to Investigate the Implementation of Feed-in Tariffs. Docket No. 2008-0273

- 2008-2009 Before the Public Utilities Commission of Hawaii  
Intervenor and expert panelist in the Commission's Proceeding to Investigate the Implementation of a Decoupling Mechanism for Hawaiian Electric Company, Inc., and Hawaii Electric Light Company, Inc., and Maui Electric Company, Limited. Docket No. 2008-0274
- 2009-2010 Before the Public Utilities Commission of Hawaii  
Intervenor and expert panelist in the Commission's Investigation of Amendments to the Framework for Integrated Resource Planning. Docket No. 2009-0108

**TESTIMONY IN RULEMAKING PROCEEDINGS RE: UTILITY RESOURCE PLANNING**

- 1979-82 Before the Oregon Energy Facility Siting Council;  
"Need for Power" Standards for large energy facilities. Participated as one of the primary crafters of the adopted language. This was one of the first resource planning rules to explicitly incorporate conservation as a utility resource.
- 1979-80 Before the Oregon Energy Facility Siting Council;  
"Specific Standards for Siting Wind Facilities." Participated as a primary crafter of the adopted language.
- 1979-84 Before the Oregon Energy Facility Siting Council;  
Testimony regarding the various Specific Standards adopted for Biomass, Cogeneration, Geothermal and Coal facilities.
- 1989 Before the Hawaii Dept. of Land and Natural Resources;  
Testimony regarding "Geothermal and Cable System Development"